TALKCOM TC750

PMR with FM Radio

User's Manual

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Safety Instructions

⚠Please read this information carefully before you use the two-way radio.

General Instructions

- Keep the antenna at least 1 inch (2.5cm) away from your head and body.
- Do not attempt to modify the radio. The radio is designed to comply with CE & R&TTE.

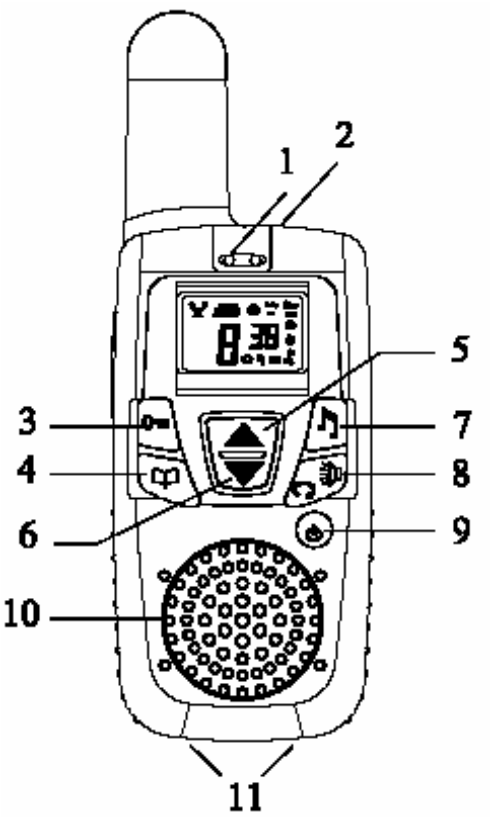
Environmental conditions

- Avoid placing this radio for prolonged periods of time in direct sunlight or temperatures below -20℃ or above 60℃.
- Turn off the radio wherever posted notices restrict the use of radios or cellular telephones.
- The LCD display is made of glass & maybe damaged if dropped or impacted.
- Don't use the radio in a high humidity or dusty environment.

Battery:

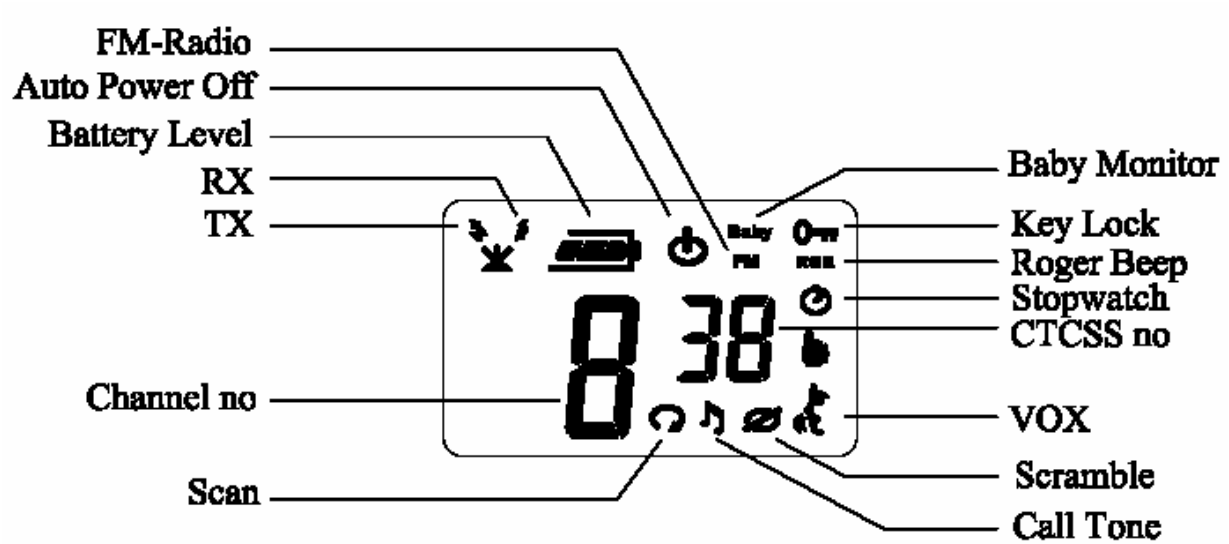
- This radio is designed to use 3.7v Li-Ion rechargeable battery. The battery included with the radio has a protection circuit to protect the battery from internal short circuit and over charge.
- Avoid any contact with conductive materials such as jewelry, keys, or beaded chains and the exposed terminals of the battery. Contact could complete an electrical circuit (short circuit) and caused the battery to over heat and could cause damage or injury.
- Only replace batteries with the same or equivalent type recommended by the manufacturer.

Key Features



1. Microphone
2. Earphone & Wall Charger Jack
3. Key Lock Key
4. Menu Key
5. Up Key
6. Down Key
7. Call Tone Key
8. Scan / Monitor Key
9. Power On / Off Key
10. Speaker
11. Desk Top Charger Pin

LCD Display Icons



Features

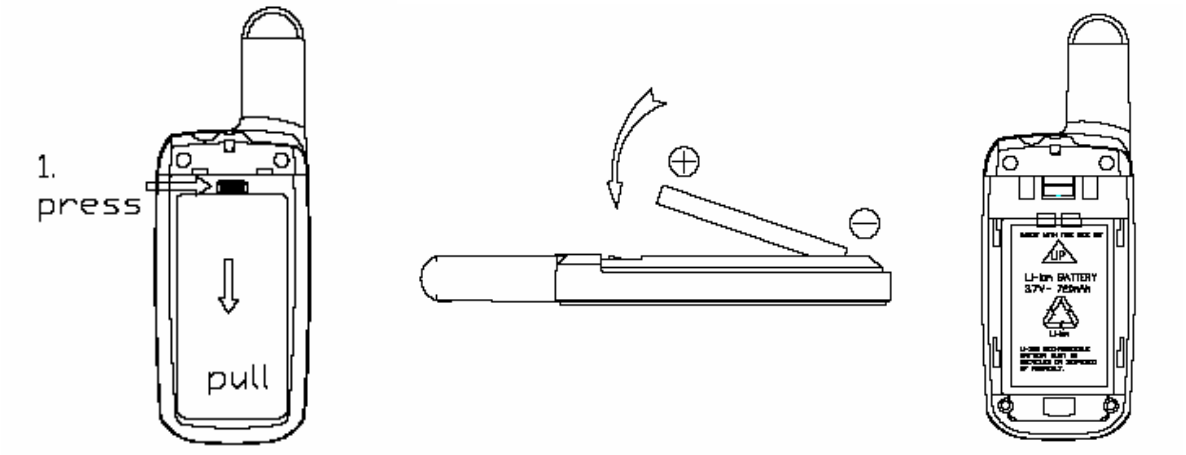
PMR-446 MHz
8 Channels
38 CTCSS codes
FM Radio: 88 ~ 108 MHz
Scramble Function: 4 Formulae Select
VOX: 3 Levels of Sensitivity
Baby Monitor
Stop Watch
Roger Beep On / Off
Auto Power Off (APO)
Call Tone
Scan
Dual Power

- Li - ION Battery Pack included
- Optional Battery Case for AAA Size Alkaline Batteries x 3pcs

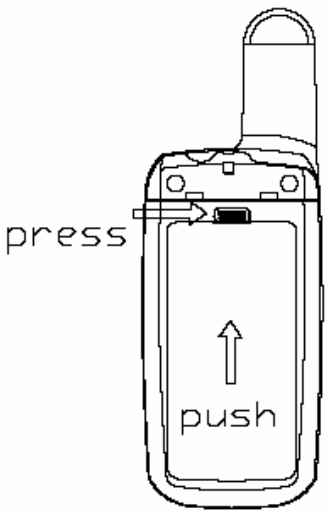
Starting Operation

Battery Installation

Using Li-ION rechargeable battery



- Press the top end of battery door and slide it down
- Follow “This Side Out” & +/- direction to install the Li-ION battery pack into the compartment



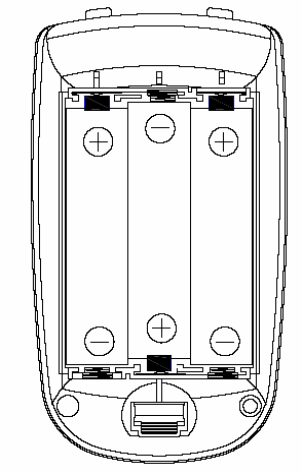
- Then push up the battery door to close

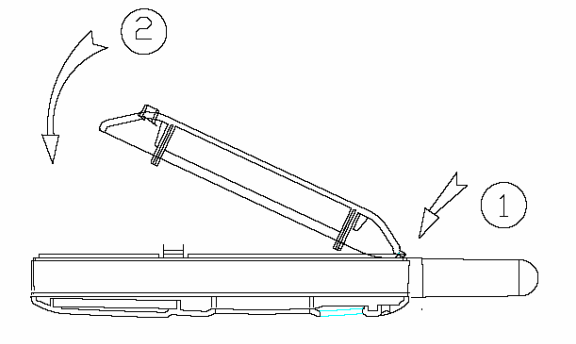
⚠ *Warning:*

- *Reversing the polarities of battery could damage the unit and the battery.*
- *If you're not going to use the unit for a long period of time e.g several weeks, please take out the battery.*
- *Please dispose of old and defective batteries in a safe & environmentally friendly manner.*
- *Do not dispose of batteries in a fire.*

Use Alkaline batteries

You can use normal AAA size batteries with the optional AAA battery case:





- Follow +/- direction to install 3 AAA size Alkaline batteries into the 3A battery case (thick case).
- Power off the PMR, remove the thin battery door and the Li-ION battery.
- Insert the top end of the AAA battery case and then push down the battery knob to close.

Recharging the Battery

When the LCD display shows the battery level is low, you must charge the battery with the enclosed AC/DC Adaptor or Desktop Charger. The battery has a built-in charging current limit circuit, when the battery fully charged, the circuit will cut the charge current automatically to protect the battery.

Charging with the AC/DC Adaptor:

- Plug the adaptor into the wall socket and plug the other end into the earphone jack.
- The unit will automatically turn off, LCD backlight turn on in 'RED' and have no display.
- Charge time is around 4 hours. Once fully charged, the LCD backlight will turn to 'Green'.

⚠ During charging, the unit will slightly warm.

Charging with Desktop Charger

- Plug the adaptor into the desktop charger.
- Put the unit into the charger.
- During charging, the RED LED of the charger will be on & the unit remains on.
- The charging time is around 6 hours. Once fully charged the LED of the charger will turn Green. Take out the radio out of the charger to stop charging

Warning: *To avoid damage to the unit, use original accessories. only*

General Operation

Powering the Unit On/Off

- To power on the unit, press "⏻" Key for 2 seconds until you hear a beep and the LCD display shows the Channel no. and battery level icon.
- To power off the unit, press "⏻" Key for 2 seconds until LCD display turns off.

Using the PMR

The unit has 8 main channels & 38 CTCSS codes. You can communicate with any other PMR that is using the same main channel & CTCSS code.

Speaking to other radios

- Press & hold the PTT key, the RED LCD Backlight turn on & show icon.
- Hold the unit in a vertical position with the Microphone 5-8cm from the mouth and then speak
- When you have finished speaking, release the PTT key and you will hear a beep tone.

Listening to other radios

- The radio will automatically play received transmissions.
- When you press the PTT key, you cannot listen to other radios.
- Adjust volume control if necessary.

Using a PTT Earphone

- Plug the PTT Earphone into the earphone Jack
- Press & hold the PTT key on the earphone to speak.
- Release the PTT key to listen.
- Adjust volume control if necessary.

Adjusting speaker volume (15 Levels)

- Press the ▲ key to increase the volume.
- Press the ▼ key to decrease the volume.

TX Time Out Function

- TX time out function can avoid accidental transmission and prolong the battery life.
- The unit will stop transmitting and sound a warning tone when PTT is hold over 60 seconds. You then need to release PTT and press it again for further transmission.
- In VOX mode, the unit will stop transmitting and sound a warning tone after continuous transmission for 60 seconds. You have to press PTT to stop the warning tone and re-activate VOX for further transmission.

Talk Range

The communication range is optimal in open field conditions and will vary in different environments:

- Optimal Range – range up to 3 km in open field conditions.
- Medium Range – reduced range in an area with obstacles such as trees, houses & wall.
- Shortest Range – further reduction in range in an area of dense forest, high mountains & tall buildings.

Warning *– Do not transmit within 1.5 meters of other radios because of interference.*

Menu Operation

Menu Flow chart

Press" " once to enter main channel selection. Press " " again for next function selection.

Menu → Main channel → CTCSS → FM Radio → Call tone → Scramble → VOX → Stop watch → Baby monitor → Roger beep → APO → Menu

Select Channel

You can communicate with any other user who is using the same channel.

To set the main channel

- Press the" " key once, the channel number display will flash,
- Press"▲","▼" key to select your desired main channel.
- Press the “PTT” key to confirm and quit
- Or press " " key once, the last selection will be confirmed and enter into next function selection.

CTCSS code function

This function can help you to identify your group of users among the same channel. Only the users with the same CTCSS tone can listen and talk to each other, but all the users on the same main channel can listen to the conversation.

To select a CTCSS code

- Press the " "key twice, the CTCSS code display will flash,
- Press "▲","▼" key to select your desired the CTCSS code (1~38, " 0 " is off)
- Press the “PTT” key to confirm and quit
- Or press " " key once, the last selection will be confirmed and enter into next function selection.

FM Radio

You can listen to FM Radio with the speaker or through earphone.

Select FM Radio Frequency

- Press "📖" key 3 times.
- LCD will display FM Radio Frequency.
- Press and hold "▲" or"▼" key to scan FM radio frequency.
- It will stop when it finds a FM radio channel. The LCD will display the frequency and you can listen to the FM radio.
- You can continue to scan for the FM radio frequency you preferred.
- Press "🔑" Key to adjust the volume when listening to FM radio.
- When you receive other PMR call signal, or you press PTT key to transmit, the unit will automatically switch to PMR mode.
- After finish PMR communication, you can press "📖" Key 3 times again to enter FM mode. The unit will remain on the last FM radio frequency you have selected.

Call Tone

You can use Call Tones to get the attention of other people with radios on the same channel and CTCSS tone. You can also use Call Tones as the signal of the start or end of a transmission.

- Press "♫" key, LCD displays ♫ icon and your call tone will be transmitted to nearby receivers set at the same channel.
- There are 10 different call tones to choose from.

Selecting Call Tone

- Press "📖" key four times, LCD display shows the ♫ icon and call tone number will flash,
- Press "▲" or "▼" key to select your desired the call tone.
- Press the "PTT" Key to confirm and quit
- Or press "📖" key once, the last selection will be confirmed and enter into next function selection.

Scramble Function

You can enjoy privacy to talk within your group by selecting a same scramble formula as your group member does.

- Press "📖" Key 5 times, LCD display ⌀ icon.
- Press "▲" or "▼" Key to select a formula from 1 to 4 . OF is turn off the function..
- Press PTT to confirm and quit.
- Or press "📖" key once, the last selection will be confirmed and enter into next function selection.
- After turn on scramble function, LCD will display ⌀ icon.
- Please make sure other group member's PMR has scramble function and select the same formula.

VOX (Hands-Free Function)

The unit has a built-in Voice Activated Circuit (VOX) function. You can enjoy talking and listening without pressing PTT Key. You can use this function with earphone (optional accessory).

To turn on VOX function

- Press "📖" key six times, LCD displays the «ξ icon and the VOX sensitivity digit display will flash.
- Press"▲" or "▼" key to select of, 1, 2, 3 for OFF, Low, Medium & High Sensitivity.
- After turning on VOX, LCD will display «ξ icon,
- Press PTT to confirm and quit
- Or press "📖" key once, the last selection will be confirmed and enter into next function selection.
- You can plug in the earphone for hands-free talking & listening. Please speak close to the mic in order to activate 'VOX' function.

Stop Watch

- Press "📖" Key 7 times, LCD display.
- Press "▲" or "▼" Key to start and press "▲" or "▼" Key to stop..
- And then press "🔑" Key to reset.

Lap Time

- To get a lap time, press "▲" or "▼" Key to start
- Press "🔑" Key, it will stop to show the lap time while stop watch is running.
- Then press Key Lock Key again to switch back to stop watch mode and show the running time.
- Press "▲" or "▼" Key to stop and press "🔑" Key to reset.
- Press "📖" Key 4 times to exist

Baby Monitor

- Press "📖" Key 8 times, LCD display "Baby" icon.
- Press "▲" or "▼" Key to monitor sensitivity level from 1 to 3 (low to high level), OF is turn OFF this function.
- Press PTT to confirm and quit.
- Or press "📖" key once, the last selection will be confirmed and enter into next function selection.
- After turn on this function, LCD display "Baby" icon.

Roger Beep (ON/OFF)

- Press "📖" Key 9 times, LCD display "Roger".
- Press "▲" or "▼" Key to turn on (display ON icon) or turn off (display OF icon) Roger beep
- Press PTT to confirm and quit.
- Or press "📖" key once, the last selection will be confirmed and enter into next function selection.
- After turn on Roger beep, LCD will display RGR icon.

Auto Power Off (APO)

- Press "" Key 10 times, LCD display icon.
- Press "" or "" Key to select auto power off time from 0 to 12 hours.
- Press PTT button to confirm and quit.
- Or press "" Key once to quit.
- After turn on this function, LCD will display icon and automatically turn off at designated time.

Scanning Channel

- Press "" Key, LCD displays icon. It will start to scan channel automatically.
  Note: *If you press and hold the button over 2 seconds, it will break the squelch noise and listen to the current channel.*
- The unit scans all channels one by one. It will stay on the occupied channel. Press "" or "" Key to continue scanning.
- If there is no signal, it will continue to scan.
- Press the PTT key and it will stay on the scanned channel and quit scan function.
- Or press "" key once, the last selection will be confirmed and enter into next function selection.

Key Lock

- Press and hold "" key for 1.5 seconds, LCD displays the icon.
- All keys are locked except the PTT and "" keys.
- To unlock, press and hold "" key for 1.5 seconds again.

Technical Specification

Frequency Range		446.00625 ~ 446.09375 MHz
Channels		8 (12.5KHz spacing)
Modulation		FM
Frequency Control		PLL
RF Output Power		PMR 500mW e.r.p
Power Supply		3.7V 720mAh Li-Ion rechargeable battery
	or	3 x AAA size Alkaline Battery
R&TTE Standard		EN300 296 EN301 489 EN60065 EN55013 EN55020

Channel Frequency Table

Channel no.	Frequency	Channel no.	Frequency
1	446.00625	5	446.05625
2	446.01875	6	446.06875
3	446.03125	7	446.08125
4	446.04375	8	446.09375

CTCSS Code

1	67.0	11	97.4	21	136.5	31	192.8
2	71.9	12	100.0	22	141.3	32	203.5
3	74.4	13	103.5	23	146.2	33	210.7
4	77.0	14	107.2	24	151.4	33	218.1
5	79.7	15	110.9	25	156.7	35	225.7
6	82.5	16	114.8	26	162.2	36	233.6
7	85.4	17	118.8	27	167.9	37	241.8
8	88.5	18	123.0	28	173.8	38	250.3
9	91.5	19	127.3	27	179.9		
10	94.8	20	131.8	30	186.2		

Standards Compliance

This product complies with the regulations for PMR446 service and has been independently approved to meet the requirements of standard ETS 300 296 and other European standards.

Care and safety with radio transmitters

In order to provide optimal radio performance and make sure human exposure to radio frequency electromagnetic energy is within the recommended parameters set forth in the regulations, always adhere to the following procedures:

When operating a portable transmitter, hold the device in a vertical position with the microphone 4 to 6 inches (10-15cm) away from your mouth. Keep the antenna at least 1 inch (2.5cm) away from your head and body. If wearing the device near your body, ensure the antenna is at least 1 inch (2.5 cm) away from your body when transmitting.

Electromagnetic interference/compatibility

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility.
In order to avoid electromagnetic interference and/or compatibility problems, turn off your radio in any location where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external radio frequency energy.
When instructed to do so, turn off your radio when on board an aircraft. Any use of a radio must be in accordance with applicable regulations per airline crew instructions.

CARE AND MAINTANENCE

OPERATING PRECAUTION

Damaged antenna

Do not use a radio with a damaged antenna. If a damaged antenna comes into contact with your skin, it could cause a minor burn. Send your equipment to technical service for repair before using it again.

Batteries

All batteries can cause property damage and/or personal injury such as burns if a conductive material such as jewelry, keys, or beaded chains touch exposed terminals. The conductive material may complete an electrical circuit (short circuit) and heat up significantly. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects.

OPERATING WARNING

Replacement parts

Use of replacement parts other than those recommended by the official product distributor may violate the device certification. Use only the recommended replacement parts.

For vehicles with an air bag

Do not place a portable radio in the area over an air bag or in the field of air bag deployment. Air bags inflate with high levels of pressure and force. If a portable phone is placed in the air bag deployment area and the air bag inflates, the phone may be propelled with great force and cause serious injury to the vehicle occupants.

Potentially explosive environments

This product DOES NOT meet intrinsic safety regulations. Turn off your radio when in any area with a potentially explosive environment. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Batteries

Do not replace or charge the batteries in an area with a potentially explosive environment. Contact sparking may occur while installing or removing the batteries and cause an explosion.

Blasting caps and areas

To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a "blasting area", or in areas posted: “Turn off two-way radio.” Obey all signs and instructions.

Note: Areas with potentially explosive environments are often, but not always, clearly marked. They include fueling areas; below decks on boats; fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

Waste electrical products should not be disposed of with household waste. This equipment should be taken to your local recycling center for sate treatment.

IMPORTANT SAFETY INSTRUCTIONS

KEEP THESE INSTRUCTIONS

Before using the battery charger, read the instructions and precautions for the charger and battery as well as the radio equipment.

PRECAUTION

To reduce the risk of sustaining injuries when using the charger, only charge the original rechargeable batteries. Other types of batteries could explode, causing injury and harm.

1.- Do not expose the charger to rain or snow.

2.- Do not use the charger if it has received a sharp blow, or has been dropped or damaged in any way.

3.- Do not disassemble the charger. If it is put back together incorrectly, it could result in a risk of electric shock or fire.

4.- Never alter the power cable provided with the charger. If the plug does not fit in the outlet, use an approved adaptor, or install the proper outlet. When unplugging the supply from the outlet, always pull the plug rather than the cable to reduce the risk of damage to the cable or plug.

5.- To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning. The use of any non-recommended accessory may result in a risk of fire, electric shock, or personal injury.

IMPORTANT

If you experience any problems with the operation of your Talkcom TC750, restart your device turning it off and removing the batteries. Replace the batteries with another set and turn on the device again. Verify that the batteries are charged, since in many cases low batteries may cause problems such as no transmission, weak signal reception or low volume.

GUARANTEE

This electronic apparatus is considered a consumer good, and as such is guaranteed for **TWO YEARS** under the terms foreseen in Directive 1999/44/EC on certain aspects of the sale of consumer goods and associated guarantees, and the Act 23/2003 of the 10th of July, for guarantees in the sale of consumer goods, or any other proceeding law that expands or revokes the previous ones. This guarantee does not affect the rights of the consumer according to the provisions of this law, and will be valid for Spain. The dated proof-of-purchase must be presented to claim this guarantee, which does not cover defects or damages that result from the following: improper use; incorrect operation; modification or repair performed by people or shops other than the official technical service without express authorization; dropping; crushing; effects from fire, liquids, or batteries; use in inappropriate environments; normal wear and tear; acts of God; or in general, all use contrary to that specified in this instruction manual.

Goods covered by the guarantee: radio telephone and supplied accessories. This excludes the battery because it is considered to be expendable. The battery will be covered by the guarantee for six months.

Name and address of the guarantor: TELCOM, S.A. (see information on last page). For any claims, contact TELCOM, notwithstanding the corresponding legal actions.

Rights of the guarantee holder: according to the previously enumerated laws. The text of the law is available to the customer at TELCOM, S.A. (see information on last page).

AUTHORIZED USE

This product can be used in the countries that have authorized the PMR446 service:
Austria, Belgium, Croatia, Czech Rep., Denmark, Estonia, Finland, France, Germany, Greece, Holland, Iceland, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland and United Kingdom. However, in some countries usage restrictions may apply. Please contact the Radio Communications Agency for further details for each country.

IMPORTANT

Notice of intended product use in the EC countries:

This product is an FM radio receiver-transmitter (two-way) suitable for use under the private mobile radio service 446 or PMR446. This is a license exempt service, but restrictions of use might apply in some countries.

Product details:

Type Designation	PMR-WT-206 Talkcom TC 750
Frequency Range	446-446.1 MHz
Transmitter Power	0.5 W
Modulation Type	Frequency
Channel Spacing	12.5 KHz
Channel Protocol	CTCSS

Declaration of conformity:

Telcom S.A., as the party responsible for introducing this product into the market, declares under its own responsibility that this apparatus complies with the Directive 1999/05/EC, of the European Parliament and of the Council of 9 March, 1999, transposed to the Spanish legislation under the Royal Decree 1890/2000, of November 20th. Hereby signed in Madrid on January 4 th, 2006.

Javier López Sánchez
General Manager, TELCOM, S.A.

Relevant Specifications:

Radio: EN 300 296-2 V1.1.1 (2001-03) ;
EMC: EN 301 489-5 V1.3.1 (2002-08)
Safety: EN60950-1:2001;
EMC FM Radio: EN55013:2001+ A1:2003 ; EN55020:2002+ A1:2003

RESPONSIBLE PARTY FOR COMMERCIALIZATION IN SPAIN

TELCOM, S.A.
Avda. de la Industria, 32
28108 Alcobendas (Madrid) Spain
Tel.: +34 91-103.30.00 FAX: +34 91-103.30.20
e-mail: admin@telcomsa.es WEB: www.talkcom.es

DECLARATION OF CONFORMITY

Name of the supplier: **Telcom, s.a.**
Address: Av. de la Industria, 32, 28108 Alcobendas (Madrid) Spain
Telephone / Fax: +34 91 103 3000 / +34 91 103 3020
CIF: A-28271823

As distributor of the manufacturer Daxian-Windsor Technology Limited., and the **responsible party for the introduction into the market of this product**,

DECLARES UNDER ITS SOLE RESPONSIBILITY
THE CONFORMITY OF THE PRODUCT:

PMR 446 Portable radio telephone, model PMR-WT-206, commercialised as Talkcom TC 750, manufactured by Daxian-Windsor Technology Limited, in P. R. of China, to which refers this declaration, with the standards or other following regulatory documents:

Radio: EN 300 296-2 V1.1.1 (2001-03) ;
EMC: EN 301 489-5 V1.3.1 (2002-08)
Safety: EN60950-1:2001;
EMC FM Radio: EN55013:2001+ A1:2003 ; EN55020:2002+ A1:2003

in accordance with the provisions of Directive 1999/05/EC of the European Parliament and the Council of March 9, 1999, transposed to the Spanish legislation under the Royal Decree 1890/2000, of November 20th.

Hereby signed in Madrid, on January 4th, 2006:

Javier López Sánchez
General Manager, TELCOM, S.A.